

## ABSTRACT

An electronic component device satisfying the lifetime for thermal shock resistance required for general electronic component devices and having high reliability is provided.

An electronic component device includes an element 10 including a functional part provided on a front face and a first frame-shaped electrode surrounding the functional part, wherein the coefficient of linear expansion in the x direction along a side of a rectangle is different from the coefficient of linear expansion in the y direction orthogonal to the x direction in the rectangular plane; a substrate 1 including a second frame-shaped electrode provided on a front face at a position corresponding to the first frame-shaped electrode; and a solder sealing frame 4 provided on the surface of at least one of the first frame-shaped electrode and the second frame-shaped electrode. In the electronic component device, the element 10 and the substrate 1 are bonded with the solder sealing frame 4, and the functional part provided on the front face of the element 10 is hermetically sealed in a space formed between the element 10 and the substrate 1. In the electronic component device, when the difference in expansion in the x direction between the element 10 and the substrate 1 is represented by  $Q_x$  and the difference in expansion in the y direction between the element and the substrate is represented by  $Q_y$ , in each of the first frame-shaped electrode 14, the second frame-shaped electrode 3, and the solder sealing frame 4, the width of a strip-shaped part extending in the direction in which the larger difference in expansion is generated between the differences  $Q_x$  and  $Q_y$  in expansion is smaller than the width of a strip-shaped

part extending in the direction in which the smaller difference in expansion is generated between the differences  $Q_x$  and  $Q_y$  in expansion.